

PATENT APPLICATION
SERIAL NO. 09/504,330

1. (currently amended) A method of allocating and scheduling requirements for agents in a skills-based contact center environment organized into a hierarchy of one or more business units at a first level, two or more contact types at a second level, and two or more management units at a third level, comprising the steps of:

(a) creating a set of contact allocations that define how contacts are hierarchically distributed from a given business unit to multiple contact types, wherein creating a set allocates forecasted contacts using agent availability data per contact type and each time interval to be allocated, and wherein agent availability data is predicted by schedule simulation of agents working their schedules and handling contacts in a skills-based contact center environment;

(b) creating a set of requirement allocations that define how agent requirements are hierarchically distributed from two or more contact types to two or more management units, wherein creating a set allocates forecasted agent requirements using agent availability data per contact type and each time interval to be allocated, wherein the agent availability data is predicted by schedule simulation of agents working their schedules and handling contacts in a skills-based contact center environment;

(c) allocating forecasted contacts and forecasted agent requirements based on the created contact and requirement allocations;

(d) using the allocated forecasted agent requirements to generate a schedule for each of the plurality of scheduled agents; and

(e) repeating steps (a) – (d) until an output of a set of contact allocations and a set of requirement allocations occurs;

wherein at least the schedule simulation and at least one of steps (c)-(e) are performed at least in part through one or more processing devices.

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2. (previously presented) The method as described in Claim 1 wherein the created contact allocations are at least minimum contact allocations, wherein the minimum contact allocations are defined by a user.

3. (previously presented) The method as described in Claim 2 wherein the created requirement allocations are minimum agent requirement allocations.

4. (previously presented) The method as described in Claim 1 wherein the created contact allocations are at most maximum contact allocations, wherein the maximum contact allocations are defined by a user.

5. (previously presented) The method as described in Claim 4 wherein the created requirement allocations are maximum agent requirement allocations.

6. (previously presented) The method as described in Claim 1 wherein the created contact allocations are from the minimum to the maximum contact allocations, wherein the minimum and maximum contact allocations are defined by a user.

7. (previously presented) The method as described in Claim 6 wherein the created requirement allocations are minimum and maximum agent requirement allocations.

8-11. (cancelled)

12. (original) The method as described in Claim 1 further including the step of generating agent schedules for the management units.

13. (original) The method as described in Claim 1 wherein a management unit is a collection of agents located at a given contact center location.

14. (original) The method as described in Claim 13 wherein at least some

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agents in a management unit are multi-skilled.

15. (original) The method as described in Claim 1 wherein the contact center environment is a telephone call center.

16. (original) The method as described in Claim 1 wherein the contact center environment is a contact center that handles a contact selected from the group consisting of: telephone calls, voice mails, emails, faxes, mail, web callback requests, web chats, web voice calls, web video calls and outbound calls.

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17. (currently amended) A method of allocating and scheduling in a skills-based call center environment, comprising the steps of:

organizing the call center environment into a hierarchy of one or more business units at a first level, two or more call contact types at a second level, and a set of two or more management units at a third level;

(a) having a user create a set of given call allocations that define how calls are distributed from a given business unit to multiple call types;

(b) having the user create a set of given requirement allocations that define how agent requirements are distributed from a call type to two or more management units;

(c) predicting agent availability by call type using a schedule [simulator] simulation to generate agent availability data, wherein the simulation data corresponds to agents working their schedules and handling contacts in a skills-based contact center environment;

(d) allocating forecasted calls and forecasted agent requirements based on the given call and requirement allocations and the agent availability data;

(e) using the allocated forecasted agent requirements to generate a schedule for each of the plurality of scheduled agents; and

(f) repeating the steps (a) –(e) until an output of a set of contact allocations and a set of requirement allocations occurs;

wherein at least the schedule simulation and at least one of steps (c)–(e) are performed at least in part using one or more processing devices.

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18. (cancelled)

19. (original) The method as described in Claim 17 wherein the given call allocations and the given requirement allocations are minimum values.

20. (original) The method as described in Claim 17 wherein the given call allocations and the given requirement allocations are maximum values.

21. (Original) The method as described in Claim 17 wherein the given call allocations and the given requirement allocations are minimum and maximum values.

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22. (currently amended) An allocation method operative in a skills-based call center environment, comprising the steps of:

- (a) organizing the call center environment into a hierarchy of one or more business units at a first level, two or more call types at a second level, and a set of two or more management units at a third level;
- (b) allocating a percentage of incoming calls from a given business unit to two or more call types;
- (c) allocating agent requirements for a given call type to one or more management units by predicting agent availability data using a schedule simulation of agents working their schedules and handling contacts in a skills-based contact center environment;
- (d) using the allocated forecasted agent requirements to generate a schedule for each of the plurality of scheduled agents; and
- (e) repeating steps (b)-(d) until an output of a set of contact allocations and a set of requirement allocations occurs;

wherein at least the schedule simulation and at least one of steps (c)-(d) are performed at least in part using one or more processing devices.

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23. (original) The method as described in Claim 22 wherein a given management unit is a collection of agents at least some of which are multi-skilled.

24. (original) The method as described in Claim 22 wherein a given call type is associated with a given automatic call distributor (ACD).

25. (cancelled)

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26. (currently amended) An allocation method operative in a skills-based contact center environment, comprising the steps of:

(a) organizing the contact center environment into a hierarchy of one or more business units at a first level, two or more contact types at a second level, and a set of two or more management units at a third level;

(b) allocating a percentage of contacts from a given business unit to two or more contact types;

(c) allocating agent requirements for the two or more contact types to two or more management units by predicting agent availability data using a schedule simulation of agents working their schedules and handling contacts in a skills-based contact center environment;

(d) using the allocated forecasted agent requirements to generate a schedule for each of the plurality of scheduled agents;

(e) repeating steps (b)-(d) until an output of a set of contact allocations and a set of requirement allocations occurs;

wherein at least the schedule simulation and at least one of steps (c)-(d) are performed at least in part using one or more processing devices.

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27. (original) The method as described in Claim 26 wherein a given management unit is a collection of agents at least some of which are multi-skilled.

28. (original) The method as described in Claim 26 wherein a given contact type is associated with a given automatic work distributor.

29. (cancelled)

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30. (currently amended) An allocation method operative in a skills-based work environment organized into a hierarchy of two or more task types at a first level, and a set of two or more management units at a second level, comprising the steps of:

- (a) creating a set of given requirement allocations that define how agent requirements are hierarchically distributed from a task type to two or more management units;
- (b) predicting agent availability by task type by schedule simulation to generate agent availability data, wherein the agent simulation data comprises a simulation of agents working their schedules and handling tasks in a skills-based work environment;
- (c) allocating forecasted agent requirements based on the given requirement allocations and the agent availability data;
- (d) using the forecasted agent requirements to generate a schedule for each of the plurality of scheduled agents; and
- (e) repeating steps (b) – (d) until an output of a set of contact allocations and a set of requirement allocations occur;

wherein at least the schedule simulation and at least one of steps (c)-(d) are performed at least in part using one or more processing devices.

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31. (original) The method as described in Claim 30 wherein a given management unit is a collection of agents at least some of which are multi-skilled.

32. (cancelled)